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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/067,737

02/08/2002

Toshio Nakagishi

P21522

9586

7055

7590

09/23/2002

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EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 09/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,737

Applicant(s)

NAKAGISHI, TOSHIO

Examiner

Dang D Le

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/8/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/493,676.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: .

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa (5,610,752) in view of Fujita et al. (4,893,891) and van Rosmalen (4,389,101).

Regarding claim 1, Hayakawa shows a galvano mirror unit (Figure 4A-4C), comprising:

- A galvano mirror (11);
 - A rotor (2) to which said galvano mirror is mounted;
 - A stator (7) that rotatably supports said rotor about a rotation axis;
 - A pair of driving magnets (21a, 21b) provided at opposing ends of said rotor;
- and

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- A pair of driving coils (9a, 9b) provided to said stator, said pair of driving coils being faced with said driving magnets respectively;

Hayakawa does not show:

- A pair of center pins provided to one of said rotor and said stator;
- A pair of receive members provided to the other of said rotor and said stator, said receive members respectively receiving said center pins;
- Each of said pair of driving magnets including a section of N-pole and a section of S-pole, both the N-pole section and the S-pole section of each driving magnet facing the same driving coil.

For the purpose of supporting the rotor, Fujita et al. show a pair of center pins provided to one of said rotor and said stator (24 and 25, Figure 7) and a pair of receive members (26, 27) provided to the other of said rotor and said stator, said receive members respectively receiving said center pins.

In addition, van Rosmalen shows each of said pair of driving magnets including a section of N-pole and a section of S-pole (22 with 23 and 26 with 27, Figure 3), both the N-pole section and the S-pole section of each driving magnet facing the same driving coil for the purpose of increasing the efficiency of the magnetic means.

Since Hayakawa, Fujita et al. and van Rosmalen are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a pair of center pins to one of said rotor and

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said stator and a pair of receive members to the other of said rotor and said stator with said receive members respectively receiving said center pins and to include in each of said pair of driving magnets a section of N-pole and a section of S-pole, both the N-pole section and the S-pole section of each driving magnet facing the same driving coil as respectively taught by Fujita et al. and van Rosmalen for the purpose discussed above.

Regarding claim 2, it is noted that Fujita et al. also show said center pins provided to said rotor, while said receive members provided to said stator (Figure 2).

Regarding claim 2, it is noted that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide said center pins to said stator, while said receive members to said rotor, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art.

In re Einstein, 8 USPQ 167.

Regarding claim 4, it is noted that Hayakawa, Fujita et al. and van Rosmalen also show a galvano mirror unit, comprising:

- A galvano mirror;
- A rotor to which said galvano mirror is mounted;
- A stator that rotatably supports said rotor about a rotation axis;
- A pair of center pins provided to one of said rotor and said stator;
- A pair of receive members provided to the other of said rotor and said stator, said receive members respectively receiving said center pins; and

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- First and second driving coils provided to said stator, wherein said rotor has first and second sides that are respectively faced with said first and second coils, said first and second sides being magnetized;
- Each of first and second sides of said rotor includes sections of N-pole and S-pole, both the N-pole section and the S-pole section of each side of said rotor is faced with the same driving coil.

Information on How to Contact USPTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL
September 19, 2002

A handwritten signature in black ink, appearing to read 'Dang D Le', with a stylized flourish at the end.